Start Date	Audit Title/ #	Objectives	NPD/LCO	Subject Matter Experts (SMEs)	Current Status
		Gathering	Data Phase	2	
7/2/2018		To determine whether the ORD's support of regional science programs helps accomplish the EPA's mission, and whether results of regional science initiatives impact the agency's decision-making.	Regions 4,5,7, and 8.	Sarah Mazur, Michelle Latham, Fred Hauchman, Maggie LaVay, Kacee Deener, Valerie, Blank	OIG sent notification on 7/2/18. OSP lead efforts to respond to OIG's data request prior to kick-off meeting on 7/23; OSP, SHC, OPARM, and regions attended. Data gathering /interviews.
6/7/2018	Review of EPA's Office of Research and Development Grants to Universities / OAE-FY18- 0248	To determine whether (1) ORD oversees and monitors grants awarded to universities in accordance with applicable laws, regulations, policies and procedures; and (2) university grantees are completing agreedupon work that meets the defined purpose of the grant.	OPARM, NCER	James Gentry, Lisa Doucet, John Nanartowicz	OIG sent notification letter on 6/7/18, OPARM and NCER responded to data request. The OIG kick-off meeting on June 28th. OIG requested ORD contact info of staff who oversee grants - for future interviews. OPARM provided contact list on 7/13. OIG conducting interviews with NCER, NRMRL, NHEERL, OARS, and OARM/OGD management and staff. Data gathering /interviews.
5/17/2018	EPA's Processes for Preserving Emails and Text Messages, and Responding to Freedom of Information Act Requests / OAE-FY18- 0217	To determine whether the EPA took action to complete OIG recommendations regarding the preservation of email and text messages, and the improvement of the agency's Freedom of Information Act (FOIA) process.	OEI & AO (lead)	ORD- Christiane Routt, Norm Adkins	OIG sent notification letter on 5/17/2018. Kick-off meeting will be w/ OEI and AO, other offices may be invited (TBD). Data gathering /interviews.

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Start Date	Audit Title/#	Objectives	NPD/LCO	Subject Matter Experts (SMEs)	Current Status
2/20/2018	EPA's Management of Counter Terrorism and Emergency Response Equipment /OAE-FY18- 0109	To determine whether the EPA has the needed and required counter terrorism and emergency response equipment and whether the equipment is efficiently managed, tracked and available for potential counter terrorism or emergency response incidents.	Agency- wide: OA/OHS (lead), ORD/HSRP		OIG sent notification letter on 2/20/2018. Entrance conference was held on 3/8/18. On 3/21/18, OIG held a meeting with HSRP staff. On April 12th, the OIG provided a written status update regarding the audit. Data gathering /interviews.
2/2/2017	Audit of EPA File Server Security / OA-FY17-0138	To determine whether the EPA is implementing security controls around the agency's file servers. OEI will be the lead office for this audit, with support from program offices and the regions.	Agency- wide: OEI (lead), ORD/OSIM	Jerry Blancato, David Updike, Rebecca Clausen, Craig Hammel	OIG sent prelim analysis notification memo on 2/2/17 which includes a survey to EPA's IT offices re file server security due by 2/16/17. Kick-off meeting on 2/8/17 with OSIM and OPARM in attendance. OSIM sent completed survey to OIG on 2/16. OIG meeting on 3/28 with OSIM and OU server administrators. 11/6/17 OIG issued audit notification with updated audit objective. Data gathering / interviews.

If edits are necessary or there are any suggestions, please contact ORD's audit coordinator, Maureen Hingeley at hingeley.maureen@epa.gov. Also, if the OIG or GAO has contacted you or staff directly, please contact Maureen.

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Tracking #	Audit/Report Title	NPD/LCO	Subject Matter Experts (SMEs)	Current Status
	Initial Reporting Phase: Re	esponding to	Discussion Document /	Statement of Facts
	Resp	oonding to Ol	G Draft Report Phase	
OPE-FY18-0002	OIG Report: EPA Needs a Vision and Strategy for Citizen Science that Aligns with Its Strategic Objectives on Public Participation	OSA	Jay Benforado, Tom Sinks, Deb Szaro (Reg 1)	On 7/3/18, the OIG issued a draft report with 4 recommendations to address (2 ORD and 2 OA). ORD received an extension to submit a response by 8/16/18. IOAA reviewed/concurred on response on 8/9/18. Response under review by OA. Once OA signs response, OPARM will work w/ IOAA for Jennifer's signature.
	Res	ponding to Ol	G Final Report Phase	
OA-FY17-0156	OIG Report: EPA's Laboratory Fellowship Cooperative Agreements Funded Foreign Nationals	NCER, OARS, & OPARM/RPAD, and OGD, OITA, OGC		On 5/14/18, the OIG issued a draft report with 3 recs addressed to OARM related to limiting fellowships to US citizens. ORD meeting w/ OGC and OGD on 5/29 to discuss the OIG report and recs. On 6/12, OPARM, NCER, and OARS' management provided comments and sent to IOAA for review. OIG granted an extension to submit agency response to June 27th. OARM submitted agency response, including revised ORD memo, to OIG on 6/28/18. ORD must address OARM corrective actions by 12/31/18. OIG exit meeting on 7/23/18 to discuss agency response and next steps. Final report to follow.

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Report Title/No	Recommendation(s)	Corrective Action(s) / Due Date	NPD/LCO
Management Alert: EPA Should Promptly Reassess Community Risk Screening Tool/ 17-P- 0378 (OIG Hotline Complaint) (2 of 4 recommendations)	Rec 1: Review the Community-Focused Exposure and Risk Screening Tool and develop an action plan with timeframes to address issues identified, including considerations on whether to retain the tool. a) Develop metrics for measuring the tool's performance and establish a regular schedule for performance evaluations. b) Survey users to obtain feedback on tool utilization and any needed improvements. Rec 2: Develop policies and procedures for planning, developing, implementing and monitoring the performance of web-based research tools. Policies and procedures could build on the draft guidance for web-based tools developed by NERL, and should ensure that any new ORD research tool stems from a clear project proposal that includes ongoing monitoring metrics and outcome measures, and vetting to ensure there is a need and no overlap with other tools.	CA#1: ORD does intend to retain this tool, we have provided responses to the additional recommendations below. a) ORD agrees. ORD has already initiated the development of performance metrics for C-FERST and other tools. ORD intended to have this be the topic for discussion and review by the BOSC which is now on hold pending appointment of new BOSC members. A completion date is therefore pending when the BOSC is formed and is able to advise ORD on recommendations for appropriate metrics. b) ORD agrees and as was mentioned in previous discussions with OIG, is partnering with ECOS and ASTHO as part of an MOA established with EPA April 2016 to survey state agencies. This survey is targeted for FY2018. (Sept 30, 2018). CA#2: ORD will work with OEI and the Chief Information Officer to develop criteria to determine when a research tool should be subject to the agency's information technology requirements. ORD will use the criteria to review its new and existing major public interface research tools to determine the applicability of the agency's IT requirements. In addition, ORD will continue improving its investment portfolio review process for IT investments as required under various laws, policies, and regulations including FITARA. ORD will expand its application development roadmap and checklist to require informing OSIM before such projects are started and to report progress and expenditures on such development projects on a regular basis (at least annually or more frequent). OSIM will review and help the developers through the appropriate Life Cycle reviews throughout the project duration and ORD will regularly monitor performance of these web-based tools. This process is being developed and will be implemented starting FY 2018 and will be continuous. (Sept 30, 2018).	

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Management Alert: EPA Should Promptly Reassess Community Risk Screening Tool / 17-P- 0378 (OIG Hotline Complaint) (4 of 4 recs)	Rec 3: Review new and existing Office of Research and Development research tools to determine the applicability of the agency's information technology requirements. Rec 4: Work with agency offices responsible for other geospatial analysis tools to develop a decision support matrix for when to use certain tools and for what purposes.	CA#3: ORD agrees and as stated in the response to recommendation #2: ORD will work with OEI and the Chief Information Officer to develop criteria to determine when a research tool should be subject to the agency's information technology requirements. ORD will use the criteria to review its new and major existing public interface research tools to determine the applicability of the agency's information technology requirements. (Sept 30, 2019). CA #4: While ORD agrees that such a decision matrix is valuable and will work other offices, predominantly OEI, ORD will cede the lead to other parts of the Agency on this cross-agency effort. ORD does not own most of those applications and thus is not well positioned to develop such a matrix. (Sept 30, 2019).	NERL, SHC, OSIM
EPA Needs to Provide Leadership and Better Guidance to Improve Fish Advisory Risk Communications / 17-P- 0174	Conduct an assessment for methylmercury to determine whether the reference dose requires updating, as indicated by the Integrated Risk Information System, and as proposed in the system's 2012 and 2015 agendas.	Within the broader IRIS assessment development process, identification of whether a specific toxicity value (such as the reference dose) requires updating is accomplished following scoping and problem formulation. The IRIS Program will complete scoping and problem formulation for methylmercury and determine whether the reference dose needs to be updated (12/31/2018).	NCEA
EPA Achieved Scientific Benefits When Using Reimbursable Research Agreements, but Better Estimating of In-Kind Costs Is Needed / 16-P- 0279	Direct ORD project managers and staff to use guidance developed and issued by the OGD for estimating in-kind contributions, and provide training.	ORD will direct its project managers and staff to use this new procedure to estimate the costs for CRADAs and CAIAs. In a related action, ORD will work with OGD, OCFO, and OGC to provide training to ORD staff on the new procedure (COMPLETED on 6/12/18). OPARM to work with OARS to prepare certification of completed corrective actions memo for AA signature.	OARS, OPARM & OGD
EPA Has Not Met Statutory Requirements to Identify Environmental Impacts of Renewable Fuel Standard / 16-P- 0275	Provide triennial reports to Congress on the impacts of biofuels as required by the Energy Independence and Security Act.	ORD agrees to provide triennial reports to Congress on the impacts of biofuels as required by the Energy Independence and Security Act. Planned completion date: 12/31/17. (COMPLETED on 6/29/18) OPARM to work with ACE to prepare certification of completed corrective actions memo for AA signature.	IOAA/ ACE & OAR

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Start Date / Tracking #	Audit Title / Congressional Requester(s)	Objectives	NPD/LCO	Subject Matter Experts (SMEs)	Current Status
		Gathering Data Phase			
7/5/18 - JC 102874	Alternatives to Animal Research / Based on a congressional request by the House Subcommittee on Interior, Environment and the Senate Subcommittee on Commerce, Justice, Science.	To determine: 1) What efforts have federal agencies made to develop, validate, and promote alternatives to the use of animals in research, testing, or training? 2) What challenges do agencies face in their efforts to develop, validate, and promote alternatives to the use of animals in research, testing, or training?	NCCT, NHEERL, NERL and OCSPP	Rusty Thomas, Monica Linninbrink, Maureen Gwinn, Reeder Sams, Ron Hines, Tim Shafer	Notification memo sent on 7/5/18. GAO entrance meeting with OCSPP and ORD on 8/8/18. GAO sent discussion questions on 7/26/18. Internal ORD prep meeting to review questions on 8/1/18; pre-briefing for IOAA on 8/8 re the discussion questions. Gathering data/interviews
6/14/18 - JC 102689	Agencies' Implementation of Scientific Integrity Poilcies / Based on a congressional request by Senator Bill Nelson of the Committee on Commerce, Science, and Transportation	To determine: (1) what are the main components of selected agencies' scientific integrity policies? (2) To what extent do selected agencies have processes in place to reasonably ensure that the objectives of their scientific integrity policies are achieved? (3) To what extent have agencies established processes for reporting and investigating allegations of misconduct of their scientific integrity policies?	IOAA, OSA, & OEI	Francesca Grifo, Vince Cogliano, Tom Sinks, and Mary Greene	Notification memo sent on 6/14/18. ORD issued Transmittal on 6/15/18 announcing audit and requesting SMEs. GAO entrance meeting on July 19th. Follow up interview on 8/8. Gathering data/interviews
5/17/18 - JC 102767	Small Business R&D Venture Capital / Based on a congressional mandate under PL 112-81	To determine: (1) the extent to which agencies elected to include majority-owned portfolio companies in their SBIR programs from fiscal years 2015 through fiscal years 2017 and (2) the results of allowing majority-owned portfolio companies to participate in the SBIR program.	NCER	April Richards	Notification memo sent to ORD on 5/17/18. NCER and OPARM met w/ GAO for an entrance conference on 6/5/18. Based on this meeting, it does not appear this review will be relevant to ORD.

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2/27/18 - JC 102673	EPA's Chemical Management Strategies / Based on GAO's own initiative pursuant to its authority under 31 U.S.C. 717.	To determine: 1) To what extent has EPA demonstrated progress assessing chemicals through the Integrated Risk Information System (IRIS) program and how have recent changes to the program addressed underlying challenges? 2) To what extent has EPA demonstrated progress implementing the Toxic Substances Control Act (TSCA), as amended by the Lautenberg Act, and ensured that EPA has the resources necessary?	NCEA and OCSPP	Tina Bahadori, Samantha Jones, Lou D'mico, Mary Ross, James Avery (lead), and Kris Thayer	On 3/27/18, GAO issued notification letter. OPARM and NCEA attended entrance conference on 4/17/18. OPARM and NCEA participated in a followup meeting on 5/9/18. Follow up meetings w/ GAO to address discussion questions on 6/12, 6/13, and 7/9. GAO to interview OW, OAR, R10, and OP. On 8/7/18, NCEA briefed IOAA on GAO's feedback regarding ORD progress to address GAO's IRIS open recommendations. Gathering data/interviews
2/22/18 - JC 102451	Access to Federally Funded Research and Data / Based on a request by Representative Bernice Johnson of the House Committee on Science, Space and Technology and Representative Sensenbrenner; and Chairman Thune and Senator Nelson of the Senate Committee on Commerce, Science and Transportation	To determine (1) How are agencies implementing the Office of Science and Technology Policy (OSTP) memorandum directing federal agencies with over \$100 million in annual research and development expenditures to develop a plan to support increased access to federally funded research results? (2) What are selected agency officials' and stakeholders' views on the extent to which implementation of agencies' plans has achieved the OSTP memorandum objectives and any challenges faced? (3) What steps have selected agencies taken to work with stakeholders to implement plans, and what options exist to improve implementation and address any challenges identified?	OSA, OSIM, NCER; OEI	Tom Sinks, Kevin Teichman, Cheryl Hawkins, Jerry Blancato, James Gentry	Notification memo sent on 2/22/18. Entrance conference has been scheduled for March 14th. ORD responded to GAO's first data call on 3/13/2018; GAO's data call included a request for a copy of EPA's public access plan, and any associated implementing guidance/documents. GAO sent questionnaire for ORD to complete. ORD's completed questionnaire sent to GAO on 7/31/18. ORD responded to follow up questions on 8/10/18. Gathering data/interviews
2/22/18 - JC 102601	Asbestos in Federal Buildings / Based on a request by Ranking Member Donald S. Beyer Jr. of the Committee on Science, Space and Technology's Subcommittee on Oversight.	To determine: 1) What are the current government efforts to maintain an up-to-date inventory of federal buildings containing asbestos and are the data readily available to the public? 2) Are there technologies that could be deployed to ensure the rapid detection of asbestos fibers? 3) Does the government have guidelines or policies to inform federal workers if they have been exposed-or potentially exposed-to asbestos, and have those policies been followed?			Notification memo sent to EPA on 2/22/18. OPARM is still working to find out how/whether this review would impact ORD, and who from the L/C/Os may be appropriate subject matter experts. On April 5th, OPARM called into the entrance conference. Based on this meeting, it does not appear this review will be relevant to ORD.

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1/17/18 - JC 102517	Potential Health and Environmental Effects of Leaks from Natural Gas Storage Sites / Based on request from Representative Eddie Bernice Johnson of the House Committee on Science, Space, and Technology, and	To examine issues regarding natural gas storage safety. Specifically, what is known about the extent of natural gas storage leaks? What is known about the risks to human health and the environment from natural gas storage leaks? To what extent has the federal government established human exposure limits for the components of natural gas? What progress has DOT made in implementing its safety		Mark Higuchi	Notification memo sent on 1/17/18, GAO entrance conference on 1/30/18 at 3p. OPARM and NHEERL to attend. Gathering data/interviews
11/22/17 - JC 102380	Representatives Suzanne Bonamici and Donald S. Beyer EPA Advisory Committees / Based on a request from request from Senators Thomas Carper and Sheldon	EPA following these requirements and policies? 3. How,	OARM (lead), OSA and OSP, agency-wide	Tom Tracey, Tom O'Farrell	Notification memo sent on 11/22/17. GAO sent data request for FACA membership documents. OSP prepared docs and sent to GAO by March 16, 2018. Gathering
	Whitehouse of the Senate Environment and Public Works Committee, as well as Senators Edward Markey, Brian Schatz, Bernard Sanders, Jeanne Shaheen, Mazie Hirono, Gary Peters, Michael Bennet, Sherrod Brown, and Al Franken.	if at all, has the composition of EPA's advisory committees changed over time?			data/interviews

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10/11/17 - JC	Federal Efforts to Address	To determine: 1) what have been achievements and	NHEERL	Kay Ho,	Notification memo sent on 10/11/17, entrance
102349	Marine Debris / Based on a	shortcomings of the Marine Debris Research,		Robert	conference on 11/9/17. OW to be agency lead.
	request from Sen. Gary C.	Prevention, and Reduction Act (the Act)? 2) What tools		Burgess	Gathering data/interviews
	Peters of the Subcommittee on	and mechanisms are available to the fed gov't under the			
	Oceans, Atmosphere, Fisheries,	act and what other relevant authorities are available for			
	and Coast Guard; Committee on	the US to coordinate internationally to prevent, reduce,			
	Commerce, Science, and	and mitigate marine debris? 3) What is the effectiveness			
	Transportation; and other	of these tools and mechanisms, and what are challenges			
	Senators	with their use? 4) To what extent are there other fed			
		env programs that could provide useful parallels that			
		could be applied to federal efforts to address marine			
		debris? 5) How does the fed gov't consider international			
		trade agreements, particularly in countries with limited			
		infrastructure, in dealing with practices that may			
		contribute to marine debris?			
06/27/2017 -	Assessing technologies that	To determine: 1) What technologies can reduce	SSWR & OW	Suzanne van	Notification memo sent on 6/27/17, entrance
JC 102103	can help reduce the	agriculture's demand on water supplies? 2) What		Drunick, Joe	conference 7/13/17. Followup meeting w/
	agricultural sector's impact on	technologies reduce the negative impact of agricultural		Williams,	SSWR on 9/14/17, GAO sent discussion
	water supplies/ Request by	runoff into water supplies? 3) What impact does		Rachel	questions in advance of meeting. Gathering
	Ranking Member Raul Grijalva	adopting these technologies have in areas experiencing		Matney	data/interviews
	of the House Committee on	water scarcity?			
	Natural Resources, and Sen				
	Edward Markey				
	Audit of EPA and states' use of	To determine: 1) What are the trends in point source	SSWR, OW,	Suzanne	Notification memo sent on 2/7/17. Entrance
101407	effluent limitations in the	pollutant loads and the reasons for these trends? 2) To	OECA,	vanDrunick	conference on 2/23/17. Gathering
	National Pollutant Discharge	what extent does EPA monitor state implementation of	regions		data/interviews.
	Elimination System (NPDES) /	effluent limits in NPDES permits, and what do the			
	Request from Senator Sheldon	results of this monitoring show? 3) To what extent do			
	Whitehouse of the Senate	states use effluent guidelines, water quality-based			
	Subcommittee on Fisheries,	guidelines, or best professional judgment when issuing			
	Water, and Wildlife	NPDES permits?			
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Product	Audit Title / Report No	NPD/LCO	Subject Matter	Findings / Current Status		
Received			Experts (SMEs)			
Date						
	Initi	al Reporting P	hase: Responding to	Statement of Facts		
7/30/2018 -	Offshore Oil Spill Prevention, Response, and	NHEERL, NCER,	Bill Fisher, Robyn	On 7/30/18, GAO issued a statement of facts for agency review with no		
JC 102207	Restoration Efforts	NRMRL (co	Conmy, Lisa Docuet,	recommendations. On 8/3/18, ORD subject experts reviewed and reported		
		lead), RPAD &	James Gentry, Mitch	no comment. Draft report to follow.		
		OLEM (co lead),	Lasat			
		OW				
8/2/2018 - JC	Science and Technology, Considerations for	Respond CSS, NHEERL,	ing to GAO Draft Rep			
101189	Science and Technology: Considerations for		Jeff Frithsen, Joe Tietge,	On Aug 2nd, GAO issued a draft report for the audit on Federal Research for		
101103	Maintaining U.S. Competitiveness in		Jay Reichman, Jay, Jim	Transformational Technological Advances. The report contains 5		
	Quantum Computing, Synthetic Biology, and Other Potentially Transformational		Carleton, Barbara Klieforth, Tom Knudsen,	recommendations addressed to OSTP, Commerce, DOE, and NSF to fully implement leading collaboration practices. No recommendations for EPA.		
	Research Areas					
	neseurch Areus		Ron Hines, Rusty Thomas	Subject experts from CSS, NCCT, NCER, and NHEERL are reviewing the report for technical accuracy by Aug 22nd. Any comments will be sent to the IOAA for review/concurrence. OCSPP and OEI are also reviewing the report.		
	Responding to GAO Final Report Phase					

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Tracking ORD's Corrective Actions to GAO's Report Recommendation(s)						
Report Title/No Recommendation(s) Corrective Actions						
	GAO published the 2017 High Risk Report on 2/15/17 (biennial report)					
Reports, 7 open recommendations)		he (7) onen IRIS recommendations on June 5, 2018				
GAO-08-440; GAO-12-42; GAO-13-	**ORD provided GAO status updates on the (7) open IRIS recommendations on June 5, 2018.					
369						

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GAO-08-440, Chemical
Assessments: Low Productivity and
New Interagency Review Process
Limit the Usefulness and Credibility
of EPA's Integrated Risk
Information System - 1 open
recommendation

GAO-08-440, report rec #5: To develop timely chemical risk information that EPA needs to effectively conduct its mission, the Administrator, EPA, should require ORD to reevaluate its draft proposed changes to the IRIS assessment process in light of the issues raised in this report and ensure that any revised process periodically assesses the level of resources that should be dedicated to this significant program to meet user needs and maintain a viable IRIS database.

GAO-08-440 Report status: June 2018 Update: In light of the release of the EPA's Strategic Plan (https://www.epa.gov/sites/production/files/2018-02/documents/fy-2018-2022-epa-strategic-plan.pdf), the IRIS Program further enhanced and augmented its engagement strategy with program and regional offices. This included engaging these offices to affirmatively evaluate their continued need for and interest in existing assessment products in the IRIS pipeline, their priority or urgency, and additional considerations for the development of the assessment, including the specific form or focus of the product (portfolio approach), and its timeline. New priority areas of interest were also identified. Results of this evaluation were summarized through a Program Management effort in IRIS which was used to calibrate resource commitments for the next 12 months. To ensure that the work in IRIS remains tethered to the needs of the program/region, during monthly EPA-wide calls, the offices are provided routine updates. This provides real-time information on EPA program priorities and allows the IRIS Program management to be aware of changes in priorities that occur as a result of high priority regulatory developments, such as under TSCA implementation or addressing OAR's court-mandated Risk Technology Review regulations. Additionally, NCEA's Assistant Center Director for Scientific Support works with the IRIS Program to provide frequent chemical-specific micro-updates to the offices around critical milestones in assessment development. The EPA Science Advisory Board met on August 29-30, 2017 to review the progress of the IRIS program. In their letter following that meeting (https://yosemite.epa.gov/sab/sabproduct.nsf/A9A9ACCE42B6AA0E8525818E004CC597/ \$File/EPA-SAB-17-008.pdf) the SAB recognized the great progress made by the IRIS program: "The Board was particularly impressed and pleased with the rapid progress that the Agency has made in responding to recommendations from the National Research Council of the National Academies of Sciences (NAS) and the SAB, with particularly notable improvements in the program over the past year." April 2017 Update -As indicated in the preamble, in addition to the Multi-Year Agenda, we will ground-truth program and regional office priority needs annually, evaluate the continued responsiveness of the Agenda for that fiscal year, and realign resources and priorities as needed. We started this ground-truthing informally in 2017, and depending on feedback from the offices and the SAB-CAAC, we will formalize this process starting in 2018.

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GAO-12-42, Chemical Assessments: Challenges Remain with EPA's Integrated Risk Information System Program (1 of 5 open recommendations)

IRIS assessments by enhancing their timeliness and certainty, the EPA Administrator should require ORD to assess the feasibility and appropriateness of the established time frames for each step in the IRIS assessment process and determine whether different time frames should be established, based on complexity or other criteria, for different types of IRIS assessments.

GAO-12-42, report rec #1: To better ensure the credibility of GAO-12-42, Rec #1 status: June 2018 Update: As part of an IRIS program and project management initiative and broader Agency commitment to LEAN management, the IRIS Program has been evaluating resources and priorities throughout 2017 and into 2018. These activities include the implementation of project and program management to optimize resource utilization and establish assessment timelines, reaffirming Agency stakeholder interest in assessments under development, and sharing new assessment plans and protocols to provide stakeholders and the public greater transparency. Management practices include frequent engagement with EPA partners per chemical assessment to monitor any changes in priority status. IRIS staff allocation is monitored multiple times a month at standing meetings of the IRIS Management Council. See update on recommendation [2008 Rec #5] for additional information. April 2017 Update: In 2017, we furthered this concept. NCEA assessments that support policy and regulatory decisions are being consolidated into a 'portfolio' of Chemical Evaluation products that optimize the application of best available science and technology. The workflow will be reoriented and timelines and resources will be tailored to flexibly fit the intended purpose of the assessment as described in the Assessment Plan (see preamble). Examples of other products incorporated in the portfolio may derive from the Updated Health Assessments pilot described in the preamble. This approach will be presented to the EPA's Science and Technology Policy Council in June and the SAB CAAC in Sept 2017 for their consideration and evaluation. In FY 2017, NCEA has also deployed program and project management (PM) for the assessments. These include working with chemical managers to develop timelines and a system that tracks the portfolio of products in development, allowing the IRIS Program to more effectively and efficiently utilize human resources across assessment projects and ensure timely delivery of products. NCEA has developed tools for tracking decisions and actions taken, and has ongoing training for staff and managers in the use of PM tools and systems.

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GAO-12-42, Chemical Assessments: Challenges Remain with EPA's Integrated Risk Information System Program (2 of 5 open recommendations)

IRIS assessments by enhancing their timeliness and certainty, the EPA Administrator should require ORD, should different time frames be necessary, to establish a written policy that clearly describes the applicability of the time frames for each type of IRIS assessment and ensures that the time frames are realistic and provide greater predictability to stakeholders.

GAO-12-42, report rec #2: To better ensure the credibility of GAO-12-42, Rec #2 status: June 2018 Update: In the last year, IRIS has moved away from one-size-fits-all assessments to a mixed portfolio of chemical evaluation products, with the following objectives: Targeted assessments with laser-sharp focus on the science specific to decision needs: Optimize the application of best practices and automation tools to promote greater throughput and higher productivity overall; Increase opportunities for public engagement, thereby mitigating later stage controversies; Develop a nimble, flexible and efficient way to draw on new data streams and create a continuum of risk assessment products to better meet the needs of stakeholders and decision makers; When possible, build on existing assessments developed by other authoritative government agencies; Significantly increase the speed, transparency, and access to assessment products and democratize the process for all stakeholders impacted by decisions. This portfolio approach is a fundamental departure from the previous approach to assessment development within the IRIS Program, which had generated the GAO recommendation. The portfolio approach will allow IRIS to remain flexible and responsive to customers within EPA, as well as the diverse stakeholders beyond EPA, including states, tribal nations, and other Federal agencies. The 2018 report of National Academy of Sciences (NAS), Progress Toward Transforming the Integrated Risk Information System (IRIS) Program, indicated: "The move toward a portfolio approach appears to add need-based and context-based flexibility to the IRIS program. . . Overall, the portfolio approach is expected to conserve agency resources, and it is consistent with the recommendations of the National Academies report, Science and Decisions: Advancing Risk Assessment (NRC 2009)." See update for recommendation [2008 Rec #5] for additional information. April 2017 Update: After receiving feedback from the EPA SAB CAAC (expected, September 2017), such a public statement will be developed. We expect the statement to emphasize the portfolio approach to chemical evaluation and reflect that the timelines and milestones will be commensurate to the scale and type of assessment product. This will also provide an opportunity to evaluate whether the program and project management training has provided the consistency in planning and delivery that was expected.

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GAO-12-42, Chemical Assessments: Challenges Remain with EPA's Integrated Risk Information System Program (3 of 5 open recommendations)

GAO-12-42, report rec #4: To ensure that current and accurate information on chemicals that EPA plans to assess through IRIS is available to IRIS users--including stakeholders such as EPA program and regional offices, other federal agencies, and the public--the EPA Administrator should direct ORD to annually publish the IRIS agenda in the Federal Register each fiscal year.

GAO-12-42, Rec #4 status: June 2018 Update: In 2017, the IRIS Program reconfirmed with Agency stakeholders that information in the multi-year Agenda was consistent with broad Agency needs. Additionally, new priorities such as perfluorinated compounds emerged with some urgency, and were assigned the highest priority by the EPA Administrator. As described in the update for [2008 Rec #4] to reflect this reconfirmation and accommodate the urgent need for assessment of perfluorinated compounds, the IRIS Program recalibrated resources. The IRIS website will be updated shortly to summarize this workflow and resource commitment as planned for the next 12 months. This process will be formalized in 2018. Updates to the Agenda will be published on the IRIS website and disseminated appropriately. In addition, as part of full implantation of systematic review, there will be increased opportunity for early engagement with stakeholders. April 2017 Update: As described in the preamble, starting in 2017, the IRIS Program will ground-truth the information in the Multi-Year Agenda annually to ensure that it remains responsive. An informal process implemented in 2017, will be formalized starting in 2018. Updates to the Agenda will be published on the IRIS website and disseminated appropriately.

GAO-12-42, Chemical Assessments: Challenges Remain with EPA's Integrated Risk Information System Program (4 of 5 open recommendations)

GAO-12-42, report rec #5: To ensure that current and accurate information on chemicals that EPA plans to assess such as EPA program and regional offices, other federal agencies, and the public--the EPA Administrator should direct ORD to indicate in published IRIS agendas which chemicals EPA is actively assessing and when EPA plans to start assessments of the other listed chemicals.

GAO-12-42, Rec #5 status: June 2018 Update: The update to the IRIS Program agenda described for [2011 Rec #4] includes information on current assessments through IRIS is available to IRIS users--including stakeholders underway and on the assessment products that are planned for the future. April 2017 Update: As described in the preamble, starting in 2017, the IRIS Program will ground-truth the information in the Multi-Year Agenda annually to ensure that it remains responsive. An informal process implemented in 2017, will be formalized starting in 2018. Updates to the Agenda will be published on the IRIS website and disseminated appropriately. The Program and Project Management tools deployed in FY 2017 are expected to facilitate estimation and adherence to the projected timelines. Following SAB-CAAC evaluation of proposed approaches to ground-truth and update the Multi-Year Agenda (expected, September 2017), an updated agenda will be published that will list which chemicals EPA is actively assessing and when EPA plans to start assessments of the other listed chemicals.

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GAO-12-42, Chemical Assessments: Challenges Remain with EPA's Integrated Risk Information System Program (5 of 5 open recommendations)

GAO-12-42, report rec #6: To ensure that current and accurate information on chemicals that EPA plans to assess through IRIS is available to IRIS users--including stakeholders such as EPA program and regional offices, other federal agencies, and the public--the EPA Administrator should direct ORD to update the IRIS Substance Assessment Tracking System (IRISTrack) to display all current information on the status of assessments of chemicals on the IRIS agenda, including projected and actual start dates, and projected and actual dates for completion of steps in the IRIS process, and keep this information current.

GAO-12-42, Rec #6 status: June 2018 Update: As stated in our responses on Recs 2011 #4 and #5, the IRIS Program has begun to update the IRIS Program agenda on an annual basis, and is providing information on current and planned assessments on the website. The IRIS Program is also implementing program and project management to effectively plan, track and maintain resources and timelines for assessments. April 2017 Update: Following SAB-CAAC evaluation of proposed approaches to ground-truth and update the Multi-Year Agenda (expected, September 2017), the IRIS website will be updated with this information.

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GAO-13-369, Chemical Assessments: An Agency wide Strategy May Help EPA Address Unmet Needs for Integrated Risk Information System Assessments 1 open recommendation

limited resources and addresses the statutory, regulatory, when IRIS toxicity assessments are not available, and once demand for the IRIS Program is determined, the EPA Administrator should direct the Deputy Administrator, in coordination with EPA's Science Advisor, to develop an agency-wide strategy to address the unmet needs of EPA program offices and regions that includes, at a minimum: (1 coordination across EPA offices and with other federal research agencies to help identify and fill data gaps that preclude the agency from conducting IRIS toxicity assessments, and (2) guidance that describes alternative sources of toxicity information and when it would be appropriate to use them when IRIS values are not available, applicable, or current.

GAO-13-369 report rec #3: To ensure that EPA maximizes its GAO-13-369 Report status: June 2018 Update: The IRIS Program has moved away from one-size-fits all assessments to a mixed portfolio of chemical evaluation products. and programmatic needs of EPA program offices and regions Targeted assessments bring laser-sharp focus on the science specific to decision needs. These products are being shaped for use by several partners, including the states, tribes. other federal agencies, and EPA's national and regional program offices. During FY18, the IRIS Program has posted assessment plans for Uranium and Ammonia that provide examples of targeted assessments underway. IRIS Program portfolio development has been recognized in two recent reviews. In the SAB letter regarding their review of the IRIS program, the SAB recognized the progress made in implementing a portfolio approach in the IRIS program: "The changes are so extensive and positive that they constitute a virtual reinvention of IRIS. . . Finally, the IRIS documents are now more modular and structured to enhance transparency and readability." In addition, NAS met in February 2018 to review the progress made by the IRIS Program in addressing previous NAS report recommendations. In their report, Progress Toward Transforming IRIS, the NAS stated: "The move toward a portfolio approach appears to add need-based and context-based flexibility to the IRIS program. . . . Overall, the portfolio approach is expected to conserve agency resources, and it is consistent with the recommendations of the National Academies report, Science and Decisions: Advancing Risk Assessment (NRC 2009)."While this recommendation highlights the need for Agency level coordination, steps taken by the IRIS Program should significantly to addressing this recommendation. For example: The new portfolio of chemical evaluation products is being developed with input from EPA program and regional offices to ensure the scope of an assessment is appropriate for user needs. The goal will be to produce more assessments in a timely fashion. Additional discussions are being held with EPA partners and others in the federal community to ensure that the products developed with the portfolio approach meet their statutory needs or decisional requirements. Collaboration between the NCEA and NCCT is ongoing to evaluate how the emerging data, models, and tools will inform assessment development and fill gaps in assessments, especially for data poor chemicals. IRIS has increased its coordination with other Federal agencies and states with an aim of reducing duplication of effort and collaborating on assessments of mutual interest (when feasible) to promote the development of more toxicity values. The increasing embrace of systematic review practices across agencies helps create clear and transparent venues for data and knowledge exchange. These activities were presented to the NAS at their

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GAO-17-453, Small Business Research Programs: Most Agencies Met Spending Requirements, but DOD and EPA Need to Improve Data Reporting - 1 recommendation	GAO-17-453, report rec #2: To ensure full compliance with SBIR and STTR spending and reporting requirements, the Secretary of Defense and the EPA Administrator should establish procedures to collect and submit obligations data orthrough SBA, independently, or through a working group of agencies participating in the SBIR and STTR programspropose to Congress an alternative methodology for calculating spending requirements for their agencies.	GAO Comments: In its comments on the draft report, EPA concurred with the recommendation and stated that EPA will work with SBA to develop an alternative methodology for calculating spending requirements. June 2018 Update: EPA has initiated discussion with SBA and held a meeting on 1/23/18. Nov 2017 Update: EPA will start discussions with the SBA in Nov 2017, so there is no update at this time.
GAO-18-207, Small Business Research Programs: Agencies Need to Take Steps to Assess Progress Toward Commercializing Technologies - 1 recommendation	GAO-18-207, report rec #10: The Small Business Innovation Research (SBIR) Program Manager within the EPA should update the agency's SBIR project solicitation to accurately reflect how the consequences of not meeting the benchmarks are to be implemented.	June 2018 Update: EPA has drafted its 2019 solicitation which is scheduled to open in June 2018 and has included the updated language on the transition benchmarks. EPA Response (Feb 2018): EPA concurs with this recommendation. EPA will update the next SBIR solicitation (which will be released in 2018) to provide information to small businesses on the consequences of not meeting the benchmarks (i.e., from ineligibility to receive certain awards to ineligibility to submit certain proposals). EPA will also plan on referencing the SBA website on performance benchmarks (https://www.sbir.gov/performance-benchmarks) to ensure consistency with SBA guidance.

If edits are necessary or there are any suggestions, please contact ORD's audit coordinator, Maureen Hingeley, at hingeley.maureen@epa.gov. Also, if the OIG or GAO has contacted you or staff directly, please contact Maureen.

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